

APPENDIX H

SUMMARY OF LIMITS OF DETECTION FOR THE RECOMMENDED TARGET ANALYTES

Table H-1. Summary of Limits of Detection for the Recommended Target Analytes^a

| Target Analyte | Detection Limits^b (ppm) |
|---|---|
| Metals | |
| Arsenic (inorganic) ^c | 5×10^{-3} |
| Cadmium ^d | 5×10^{-3} |
| Mercury ^e | 1×10^{-3} |
| Selenium ^f | 2×10^{-2} |
| Tributyltin ^g | 1×10^{-3} |
| Organochlorine Pesticides^h | |
| Chlordane (total) | 1×10^{-3} |
| <i>cis</i> -Chlordane | |
| <i>trans</i> -Chlordane | |
| <i>cis</i> -Nonachlor | |
| <i>trans</i> -Nonachlor | |
| Oxychlordane | |
| DDT (Total) | |
| 4,4'-DDT | 1×10^{-4} |
| 1,4'-DDT | |
| 4,4'-DDD | |
| 2,4'-DDD | |
| 4,4'-DDE | |
| 2,4'-DDE | |
| Dicofol | 1×10^{-2} |
| Dieldrin | 1×10^{-4} |
| Endosulfan (Total) | 5×10^{-3} |
| Endosulfan I | |
| Endosulfan II | |
| Endrin | 1×10^{-3} |
| Heptachlor epoxide | 1×10^{-4} |
| Hexachlorobenzene | 1×10^{-4} |
| Lindane | 1×10^{-4} |
| Mirex | 1×10^{-4} |
| Toxaphene | 1×10^{-3} |
| Organophosphate Pesticidesⁱ | |
| Chlorpyrifos | 2×10^{-3} |
| Diazinon | 1×10^{-2} |
| Disulfoton | 1×10^{-2} |
| Ethion | 2×10^{-2} |
| Turbufos | 5×10^{-2} |

(continued)

Table H-1 (continued)

| Target Analyte | Detection Limits ^b (ppm) |
|---|-------------------------------------|
| Chlorophenoxy Herbicides^h | |
| Oxyfluorfen | 1×10^{-2} |
| PAHsⁱ | 1×10^{-6} |
| PCBs (Total Aroclors)^h | 5×10^{-2} |
| Dioxins/Furans (Total)^k | 5×10^{-7} |

PAHs = Polycyclic aromatic hydrocarbons.

PCBs = Polychlorinated biphenyls.

^a Detection limit provided for analysis of tissue on a wet weight basis.

^b Limit of detection shown is lowest value identified.

^c Analysis by hydride generation atomic absorption spectrophotometry (HAA) with preconcentration (E. Crecelius, Battelle Pacific Northwest Laboratories, Marine Sciences Laboratory, Sequim, WA, personal communication, June 1995).

^d Analysis by graphite furnace atomic absorption spectrophotometry (GFAA).

^e Analysis by cold vapor atomic absorption spectrophotometry (CVAA).

^f Analysis by hydride generation on atomic absorption spectrophotometry (HAA).

^g Analysis by gas chromatography/flame photometric detection (GC/FPD) (E. Crecelius, Battelle Pacific Northwest Laboratories, Marine Sciences Laboratory, Sequim, WA, personal communication, June 1995).

^h Analysis by gas chromatography/electron capture detection (GC/ECD), except where otherwise noted. GC/ECD does not provide definitive compound identification, and false positives due to interferences are commonly reported. Confirmation by an alternative GC column phase (with ECD), or by GC/MS with selected ion monitoring, is required for positive identification of PCBs, organochlorine pesticides, and chlorophenoxy herbicides.

ⁱ Analysis by gas chromatography/nitrogen-phosphorus detection (GC/NPD).

^j Analysis by gas chromatography/mass spectrometry (GC/MS). Detection limits of ≤ 1 ppb can be achieved using high-resolution gas chromatography/mass spectrometry (HRGC/HRMS).

^k Analysis by high-resolution GC/high-resolution mass spectrometry (HRGC/HRMS).